

Hertie Foundation establishes new institute combining artificial intelligence and neuroscience

This month marks the launch of an outstanding project integrating artificial intelligence (AI) and neuromedicine – the Hertie Institute for Artificial Intelligence in Brain Health (Hertie AI). Founded on February 1 at the Medical Faculty of the University of Tübingen, it will be the first institute in Germany to research the prevention and early diagnosis of diseases of the nervous system using artificial intelligence methods.

Hertie Institute for Artificial Intelligence in Brain Health (Hertie AI) in Tübingen

- Hertie Foundation donates 10 m euros in sponsorship for joint project with University of Tübingen
- Institute to comprise new building block in Cyber Valley, Europe's largest AI research consortium
- New institute will use advances in artificial intelligence to help patients with neural disorders

AI and big data for the prevention of brain diseases

Hertie AI will build on recent advances in machine learning and artificial intelligence and use them to better understand the nervous system in both healthy and diseased states. With the help of complex data sets now available in basic research and collected in everyday clinical practice, new methods will be developed at the Institute to detect diseases of the nervous system earlier, to predict disease progression and to apply treatments in a more targeted manner. To fully exploit this potential, Hertie AI will focus on the methodological innovations that meet the special requirements placed on clinically applied AI methods in clinical use - accuracy, robustness and accountability.

Founding director Prof. Dr. Philipp Berens, professor of Data Science at the University of Tübingen and spokesperson for the Cluster of Excellence "Machine Learning: New Perspectives for Science" has been conducting research in the field for 15 years. "At the new institute we can cover the translational pipeline all the way from basic methodological research to clinical implementation," Berens says. "This will allow us to leverage the investment in AI in Tübingen for both neuromedicine and patients - in collaboration with our clinical partners in neurology and ophthalmology," he adds.

The Hertie Foundation is providing 10 million euros in sponsorship for the joint project for an initial five years. Following the successful establishment of the Hertie Institute for Clinical Brain Research (HIH) in 2001, the foundation is thus investing in a new, forward-looking large-scale project in Tübingen as part of its overarching purpose to unlock the secrets of the brain.

Frank-J. Weise, Chairman of the Hertie Foundation executive board, explains: "The promotion of neuroscience is one of the Hertie Foundation's core topics. I am sure that artificial intelligence will play a key role in the future and am therefore very pleased that we are able to launch another pioneering institute that further advances neuromedicine in collaboration with the University of Tübingen. Like the Hertie Institute for Clinical Brain Research, which was founded jointly with funding from the state of Baden-Württemberg, this impressively demonstrates what a good public-private partnership can achieve."

The University of Tübingen President, Professor Dr. Karla Pollmann, thanked the Hertie Foundation for its sustained commitment to Tübingen. "It is largely thanks to the support of institutions like the Hertie Foundation that we have been able to establish Tübingen in several highly innovative and dynamically developing research fields such as neuroscience and artificial intelligence in recent decades," she said. President Pollmann added that such commitments by private donors are central to success in the competition for the best minds worldwide and - in conjunction with support from the German government - to creating good conditions for top-level research.

"The Hertie Institute for Artificial Intelligence in Brain Health is a significant milestone on the way to Medicine 4.0. The digitization of medical research and patient care will enable us to achieve groundbreaking progress in the future. Artificial intelligence can help us to cope with the gigantic amounts of data that are generated, for example, when the latest medical diagnostic procedures are used. It is therefore all the more gratifying that Hertie AI is located at the Medical Faculty of Tübingen," says Professor Dr. Bernd Pichler, Dean of Medicine in Tübingen.

Hertie AI is a new pillar in the network of research initiatives in neuroscience and artificial intelligence in Tübingen, which is unique in Europe. Hertie AI represents a valuable addition to the Cyber Valley artificial intelligence group.

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Further information

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